NIRD; RKVY Monitoring Unit
Analytical Report on Manipur SAP

1. **Name of the State**
   Manipur

2. **What target the State decided to achieve using RKVY assistance during 11th Five Year Plan (FYP) for the agriculture sector as a whole and for the sub sectors?**
   The SAP basically targets growth through increase in overall production of the agriculture & allied sectors of the State, during the 11th Five Year Plan. It sets specific targets for various sub-sectors of the agriculture & allied sectors that include main sub-sectors like agriculture, horticulture, fisheries and animal husbandry, apart from other sub-sectors/activities like forestry, cooperation, minor irrigation and command area development.
   For the agriculture sub sector, the SAP sets targets of increasing overall crop production by 39.85 per cent at an annual growth rate of 7.97 per cent, increasing net agricultural area and gross agricultural area by 3.86 per cent and 18.68 per cent respectively, and increasing cropping intensity from 132.73 per cent to 140.45 per cent, during the 11th Five Year Plan over base-values for year 2006-07.
   The SAP states that originally a target growth rate of 8 per cent had been planned for the horticulture sector, but due to adversaries caused by a number of reasons (the SAP here does not mention specifically the reasons but mentions severe drought of year 2009 as a major reason) , the achievement of target has become uncertain.
   For the fisheries sector, the SAP targets increasing table fish production from 17000 tonnes to 23000 tonnes during the plan period.
   For animal husbandry sector, the SAP aims to augment the production of livestock products such as milk, meat, egg and wool. It targets an increase in total milk production from 369.76 tonnes during 10th plan to 500 tonnes during the 11th plan (an increase of over 35 per cent); and an increase in total meat production from 113.84 tonnes during 10th plan to 135 tonnes during 11th plan (an increase of over 18 per cent).
   For forestry sector, it plans to increase the final plantation area under *afforestation* program from 540 Ha in 10th plan to 1990 Ha in 11th plan.
   Under minor irrigation, the SAP targets to increase area under *surface flow scheme* from 12,390 Ha in 10th plan to 23,000 Ha in 11th plan.

3. **Which method (Method 1 or Method 2) is used for the preparation of SAP? How integration (methodology) of C-DAPs and prioritizing major interventions was done to prepare SAP?**
   It is not explicit from the SAP that which method is used for its preparation. However, the fact that the C-DAPs of various districts have significant similarity/congruency in their respective presentation, gives an indication of following the method 2 (i.e. nodal agency giving prior-guidance/direction to district agricultural departments on requirements for preparation of the C-DAPs). There is no indication of the methodology followed for integration of C-DAPs in the SAP. There is no clue regarding how prioritization of major interventions was done to prepare the SAP.

4. **Whether SAP has critically analyzed and clearly stated the agricultural situation of the state vis-à-vis its districts through a SWOT analysis covering agro-climatic conditions, natural resources, infrastructure, institutions, technologies, manpower etc**

The SAP has critically analyzed and clearly stated the agricultural situation of the state vis-à-vis its districts through a SWOT analysis covering agro-climatic conditions, natural resources, infrastructure, institutions, technologies, manpower etc. However, the SWOT analysis is not classified and systematic. Major *strengths* are relatively higher productivity of rice, a prominent food-grain crop in the State, (2456 kg/ha, in year 2007-08) as compared to the national average (2203 kg./ha, in year 2007-08); a satisfactory cropping-intensity of 134.88 per cent in 2008-09; varied agro-climatic conditions supportive to horticulture crops in the State and a large area (64 per cent of the total geographical area) under natural vegetation that comprises plenty of commercially valuable forest resources such as teak, pine and oak, besides rubber, tea, coffee, orange, cardamom etc. providing avenues of livelihood and employment to a large section of hill population; a high literacy rate of 70 per cent aids farmers in their better response to the institutional extension efforts; and a fast growing fish seed production sector in the State involving private fish seed producers trained by the State Fisheries Department.

Notable weaknesses include low area under cultivation (10.48 per cent of the total geographical area of the state); low-irrigated area (13.24 per cent of the cultivated area) due to lack of adequate and reliable irrigation and drainage infrastructure; knowledge and skill gap in production technologies of various horticultural crops; lack of cold storage facilities to store vegetables and fruits; and inadequate processing infrastructure for horticulture crops (fruits, some vegetables like tomato, and spices) resulting in wastage of raw material.

Important opportunities include enormous scope for development of horticulture-sector in the hills supported by varied agro-climate and soils (horticulture-crops include fruits, vegetables, roots & tuber crops, flowers, ornamental, medicinal & aromatic plants, spices, plantation crops, mushroom, nuts etc.); cultivation of horticulture crops being more labour-intensive and remunerative than cereals, provides scope for enhanced employment opportunities and income for the rural masses; scope for development of cold water fisheries, aquaculture programme etc. through adoption of seed farms, riverine and running water fisheries and other infrastructure for optimization of fish production in the hill districts of the State; scope for private investment in fruit & vegetables processing sector; and good connectivity of the State with rest of the country through a number of national highways.

The threats include shrinking water area in the State (it has shrunk from initial 1,00,000 ha to 56,461.05 ha in 1993) due to continuous fresh silt deposition and infestation with thick floating *phoomdis* and submerged weeds associated with illegal encroachment to the lake area; soil-erosion and land degradation in hill areas due to widely prevalent traditional *jhuming* agriculture (hill areas constitute 90 per cent of the total geographical area of the State); an increasing man to agricultural-land (in Hectare) ratio (1 : 0.13 in 1991 to 1 : 0.10 in 2001); and the fast population growth in the State.

5. **Whether Convergence- inter and intra department/programmes- been attempted and what is the extent of convergence? Have all potential options for convergence been identified and explored?**

We do not get any clue from the SAP about convergence of various development programs/projects being implemented in the State. It gives proposed financial outlays under various sub sectors of agriculture & allied sectors, without mentioning any Centrally Sponsored

Schemes/State Schemes as source of funding. However, the sum of the proposed total funding outlay of all the districts equals to the total proposed outlays of the State.

Also, we do not get idea from the SAP that whether Convergence – inter and intra department/programmes – has been attempted and the extent of convergence.

The SAP does not make it clear whether all potential options for convergence have been identified and explored. This may be considered as a weak point of the SAP.

6. **Has the experience of on-going CSS and state schemes been studied and lessons learnt have been incorporated in SAP/C-DAPs for replication/ expansion/ modification in uncovered areas?**

It is not explicit in the SAP whether the experience of on-going CSS and State schemes has been studied and lessons learnt have been incorporated in SAP/C-DAPs for replication/expansion/modification in uncovered areas. However, the C-DAPs are quite elaborate while the SAP is very brief.

7. **Whether the yield gaps and returns in different crops/livestock/fisheries have been estimated?**

It is not explicit either in the SAP or in the C-DAPs (except one) whether the yield gaps and returns in different crops/livestock/fisheries have been estimated. They do not mention anything about the estimation of yield gaps and returns. However, the C-DAP of *Ukhrul* district provides yield- gap analysis for three sub-sectors of horticulture, i.e. fruits, vegetables and spice.

8. **How the technological and agronomic gaps were identified to contribute to yield gaps?**

It is not explicit in the SAP/C-DAPs how the technological and agronomic gaps are identified to contribute to yield gaps. However, the C-DAP of *Ukhrul* district cites *the poor management, the lack or irrigation, and the ignorance of pest & diseases* as reasons for yield gaps in fruits, vegetables and spices crops.

9. **How the identified constraints are adjudged responsible for low crop productivity in general and specific crops in particular? Is it an opinion or stated on the empirical basis?**

The SAP identifies various constraints responsible for low crop productivity for various sub sectors under agriculture & allied sectors. The reasons that the SAP cites for low productivity of crops under agriculture sub sector, like foodgrains, oilseeds, sugarcane and potato include occurrence of late monsoon and drought in recent years resulting delay in rice seedling and transplanting; *Walter inundation* due to heavy rainfall during the *Panicle Initiation* (PI) stage of Rice; lack of inputs - fertilizer; lack of adequate and reliable irrigation; lack of adequate infrastructuire for mobilizing development programme in the hills etc. Similarly the SAP lists identified constrains in various sub sectors of the agriculture & allied sectors.

But, it is not clear from the SAP that how the identified constraints are adjudged responsible for the low crop productivity.

10. **How the interventions are identified to bridge the gaps in productivity levels?**

It is not explicit in the SAP that how the interventions are identified to bridge the gaps in productivity levels.

11. **Whether the right strategies have been prioritized to bridge the yield gaps in crop/livestock/fisheries and maximize returns to farmers have been clearly spelt out?**

Whether the empirical basis for appropriate strategies provided? How far they have been obtained/decided through a consultative process with all the relevant stake holders?

The SAP has attempted to formulate strategies at the level of sub sectors for the various agriculture & allied sectors to bridge the yield gaps in crop/livestock/fisheries and maximize returns to farmers; however it does not give separately the strategies for the State as a whole. Also, there is no explicit evidence towards identifying strategies and systematically prioritizing them. There is no reference to consultative process in obtaining them.

12. **Whether the prioritized strategies have been translated into programmes/projects/activities by sectors and years with clear cut objectives, targets, output, outcome, funding (RKVY, other sources) for each project? Whether the viability of each project to achieve the expected output considered?**

    No, the prioritized strategies have not been translated into programmes/projects/activities by sectors and years with clear cut objectives, targets, output, outcome, funding for each project, in the SAP. However, the same has been done in the C-DAPs of respective districts. The viability of projects to achieve the expected output is not considered in the SAP.

13. **Have border areas/ insurgent areas/problem areas (mining, acidic soils etc) have been addressed by formulating any specific projects?**

    The SAP does not mention any projects; only the respective C-DAPs mention them.

14. **What is the mismatch (difference between estimated budget in SAP/C-DAP and the approved and used budget) between the projections and funding in SAPs/C-DAPs and the projects(difference between planned projects in SAP/C-DAP and approved projects and funding being implemented? How this mismatch affects the targets, expected outputs/outcomes/growth impact?**

    No information on the approved and used budget is available for the State. Hence the mismatch cannot be determined. However, the SAP provides yearly proposed financial outlay under RKVY, categorized into 7 sub sectors of the agriculture & allied sectors. The total proposed outlay for years 2009-10, 2010-11 and 2011-12 are Rs 209.72 crores, 254.07 crores and Rs 273.73 crores respectively. Total proposed outlay for all the three years is 737.52 crores.

15. **Are the projects/programmes large enough, instead of being small and prolific pilot type schemes, to make a visible (impact) in the sectors?**

    The SAP does not give project-wise proposed allocations. Hence, we cannot comment on the size of the projects. However, the respective C-DAPs do give project-wise proposed allocations.

    The majority of projects mentioned in various C-DAPs are smaller in size. However, the disproportionately high proposed allocations for two of the districts, namely *Imphal East* and *Thoubal*, have resulted in high value projects. For example, projects on agriculture mechanization (Rs 45.50 crores), agriculture irrigation (Rs 12.60 crores), animal health care (Rs 24.45 crores), cattle & buffalo development (Rs 17.47 crores), poultry development (Rs 13.73 crores), piggery development (Rs 12.42 crores), and assistance for construction of Rearing Houses (RH) – with verandah for mulberry sector (Rs 26.50 crores) in *Imphal East* district. Similarly projects on animal health care (Rs 24.45 crores), cattle & buffalo development (Rs 36.80 crores), poultry development (Rs 13.73 crores) and piggery development (Rs 12.42 crores) in *Thoubal* district.

16. **Has the SAPs identified Flagship programmes (extensive to cover large part of the state and larger area)?**

    No, the SAP does not mention any flagship programme. However, it gives special thrust to horticulture by mentioning it as a major sector for improving the economy of the State.

17. **Whether sectoral and spatial allocation of funds conforms to equitable and optimal distribution of resources?**

    Broadly, the sectoral and spatial allocation of funds seems to conform to equitable and optimal distribution of resources. Sectorially, the SAP allocates 32.8 per cent and 32.6 per cent of total proposed allocations to the *veterinary & animal husbandry* and *agriculture* sub sectors. *Agriculture* is a major sub sector in terms of providing livelihood to 70 per cent of the State's population and therefore it justifiably deserves a high share in total allocation. Despite *agriculture* being the backbone of State's economy, the area under cultivation is much lower at 10.48 per cent of the total geographical area. With 80 per cent of the population residing in rural areas, the *veterinary & animal husbandry* sub sector of the State plays a key role in supplementing the income of rural masses; hence the allocation is appropriate. Supported with varied agro-climatic conditions, the *horticulture* sub sector constitutes a potential area of high growth in the State; it has been rightly allocated 14.8 per cent in the total proposed allocations. However, a relatively higher allocation to *sericulture* (9 per cent) vis-à-vis lower allocation to the *fisheries* (2.4 per cent) does not look appropriate; as fisheries is a prominent sub sector in State's economy with ample growth opportunity.

    Though a positive correlation of value of 0.62 is observed between the amounts allocated to various districts and their respective populations indicating conformity to broader spatial allocation, yet gaps in equitable allocation exist. For example, the most populated district *Imphal West* has been given much lower allocation (allocation share 5.8 per cent; population share 20 per cent) vis-à-vis relatively lower populated districts such as *Imphal East* (allocation share 36.2 per cent; population share 18.2 per cent), *Thoubal* (allocation share 24.1 per cent; population share 16.8 per cent), and *Ukhrul* (allocation share 7.4 per cent; population share 6.5 per cent). The disproportionate allocations to *Imphal East distri*ct are made in *agriculture*, *veterinary & animal husbandry* and the *sericulture* sub sectors. The C-DAP of *Imphal East* district perhaps attempts to justify the proposed allocations by stating, "*Imphal East* district being a district with different soil, and climate condition and also different cultural background, it needs to be tackled very cautiously".

18. **Are there any innovative projects? If so, how do they contribute to fulfill the special needs outside ongoing programs?**

    The SAP does not give information on projects. However, the C-DAPs give information on projects, including the innovative projects. For example, the C-DAP of *Imphal East* district mentions projects like spraying of *DAP* on pulses in 1000 ha, promotion of organic farming, organic manure production and green manuring, e-agriculture, integrated farming system in model villages etc. as the *innovative schemes/programmes*.

19. **What is the basis of planning certain projects for the State as a whole and how do they get monitored?**

    The SAP does not give any information on projects. Also, since the proposed RKVY allocation for the State is simply a sum of the proposed allocations of all the districts, it is evident that no State level projects are planned in the SAP.

20. **What is the basis of sectoral fund allocation? Is it based on expected marginal contributions? Any viability analysis is made?**
The basis of sectoral fund allocation is not explicit in the SAP/C-DAPs. It is not clear whether it is based on the expected marginal contributions. There is no mention of any viability analysis done in the SAP. However, a higher allocation of 14.8 per cent to *horticulture* sub sector (having significant potential for growth in the hill-dominated State) indicates rational allocation of funds.

21. **Whether the allocations across years were right? What was the basis for yearly allocations?**
The allocation of funds has progressively increased over the years. The allocation for years 2009-10, 2010-11 and 2011-12 have been 28.4 per cent, 34.4 per cent and 37.1 per cent respectively of the total allocation amount of Rs 737.52 crores stated in the State plan.
Allocations across years seem to be right. In the first year, at the inception stage funding requirement is relatively low. Also, the capacity to use funds is lower in the beginning. It rises with progress of the projects. During the intermediate years greater funding provision secures successful completion of the project.

22. **Is the SAP in line/ tune with overall agricultural strategy and goals of the country/ state?**
A look at the proposed allocations to various agriculture & allied sub sectors (though allocations by schemes or projects are not given in the SAP), constraints and objectives mentioned in the SAP gives impression that the SAP is in line/ tune with the overall agricultural strategy and goals of the country/ state. It focuses on fast growth in all agriculture & allied sub sectors. Besides the major *agriculture* and *veterinary & animal husbandry* sub sectors*, it makes substantial allocation to the promising horticulture sub sector. The plan targets growth along with strengthening of the livelihood-basis of rural masses by generously allocating to the *agriculture* and the *veterinary & animal husbandry* sub sectors. The country aims at achieving 4 per cent growth rate during 11th five-year plan. The State Plan is an attempt towards it.

23. **Whether mechanisms for planning, baseline information collection, monitoring, documentation and regularly reporting progress are clearly spelt out?**
It is not explicit from the SAP that whether mechanisms for planning, baseline information collection, monitoring, documentation and regularly reporting progress exist. However, C-DAPs of two districts (*Churachandpur* and *Senapati*) do mention of baseline information collection with respect to information on *area* and *production* variables, using primary data*.

Directions for 12th FYP

1. **Whether the planning, monitoring and evaluation mechanisms exist, functional and made use of to fulfill the expectation and bridge the gaps? If not, what is the plan for strengthening PME mechanisms and making them functional during the remaining years of 11th FYP and 12th FYP when it gets launched? Whether the baseline information is maintained for comparison of performance of the project later?**
It is not explicit whether the planning, monitoring and evaluation mechanisms exist, functional and made use of to fulfill the expectation and bridge the gaps. Also, there is no mention in the SAP of the plan for strengthening PME mechanisms and making them functional during the remaining years of 11th FYP and 12th FYP when it gets launched. It is not mentioned whether the baseline information is maintained for comparison of performance of the project later.

2. **Whether the mid-term evaluation by the external agency is done for change of the targets and inter-sectoral resource adjustments?**
It is not mentioned.

3. **Is social audit done to facilitate publicity on status of the implementation and maintenance of transparency?**
It is not mentioned.

4. **What are the major lessons from RKVY implementation in the State for the 12ᵗʰ FYP?**
(i) The SAP should provide funding details under various CSS and State-level schemes besides the RKVY. If not given, analyzing the extent of convergence of existing schemes with the RKVY will be difficult. Convergent approach within the sector and outside the sector should be attempted, particularly with MGNREGS to avoid duplication in respect of soil and water harvesting and conservation. MGNREGS resources can be tapped for this. Instead the SAP should come out with more interventions to concentrate on cropping and production systems including horticulture, livestock and fisheries in areas that have been developed under watershed and NRM.
(ii) The main experiences of implementing CSS/State schemes should be summarized and stated whether/how they are made use of to prepare SAP for replication, expansion etc.
(iii) Prioritization of interventions needs to be attempted using standard objective methods.
(iv) The SAP should attempt to articulate specific programmes/projects/activities along with required budget (RKVY and other sources).
(v) The project proposals should emanate from Districts preferably Zilla Parishads on the basis of C-DAPs.
(vi) There should be rigorous filtering of proposals by an expert Committee earlier and in SLSC meetings later.
(vii) There should be a dedicated PM&E mechanism at the State level for facilitating project screening, database management, monitoring, evaluation and reporting of RKVY projects. It should facilitate mid-term evaluation by external agency and also social audit to facilitate publicity and maintenance of transparency.
(viii) The SAP should provide yield-gap estimates, both at State and district-level, for major crops and other enterprises.
(ix) The allocations proposed in SAP are a simple addition of the allocations proposed in the respective C-DAPs. Further, the SAP provides year-wise proposed allocations at the level of sub sectors of agriculture & allied sectors, unlike the C-DAPs which also give proposed allocations at the level of projects/interventions. Information on proposed allocations at the project level should form part of the SAP.

Overall conclusion
In view of being a small state, the SAP includes the C-DAPs of all the 9 districts. But the SAP does not provide a feeling of an independent exercise. It is an aggregation exercise. In general, the C-DAPs are well prepared but should contain a brief text of summary of highlights. The SAP needs improvement in providing details of outlays and convergence with other schemes, clear-cut strategy to achieve 4% growth(though a good account of targets by sectors given), basis for identification and prioritization of interventions, project details including quantified targets, output and outcome and dedicated PME mechanism. These points need special attention during 12ᵗʰ FYP.